

AMENDMENT TO THE CLAIMS

1-18. (canceled)

19. (currently amended) A current probe for measuring current in a conductor, comprising a plurality of relatively fixed coils which define, and are substantially equally spaced apart along, a notional closed path surrounding the conductor, the coils being connected in series in such manner that an unobstructed gap is left between one pair of adjacent coils to enable the conductor to be introduced inside the closed path, wherein said coils are arranged in two concentric loops of coils, each loop being connected in series, and each loop having a gap between two of the coils in the loop, said gaps enabling introduction of the conductor into the interior of the concentric loops.

20. (previously presented) A current probe according to claim 19, wherein said coils are Rogowski coils.

21. (previously presented) A current probe according to claim 19, wherein said closed path is circular.

22. (canceled)

23. (currently amended) A current probe according to claim 19[[22]], further comprising an electronic circuit for comparing the pickup from external sources experienced by each of the two loops and providing an output which compensates for such pickup, based on the respective dimensions of the loops.

24. (canceled)

25. (currently amended) An electrical energy meter ~~as claimed in claim 24, further~~ comprising an electrically insulating housing for securing relative to at least two mains cables each having a conductive core surrounded by a sheath of insulating material, the housing including respective electrical contact means for piercing the insulating sheath of each cable to make contact with the core, ~~[[said]]~~ sensing means for providing an output corresponding to the current flowing in at least one of the cables, and circuit means for calculating and displaying electrical energy as a function of the voltage across the contact means and the output of the sensing means, said sensing means comprising a plurality of relatively fixed coils which define, and are substantially equally spaced apart along, a notional closed path surrounding the said at least one mains cable, the coils being connected in series in such manner that an unobstructed gap is left between one pair of adjacent coils to enable the said at least one mains cable to be introduced inside the closed path.

26. (previously presented) An electrical energy meter according to claim 25, wherein the housing comprises first and second parts which are movable with respect to one another from a first position in which the cables may be introduced into the housing, to a second position in which the cables are secured relative to the housing.

27. (previously presented) An electrical energy meter according to claim 26, wherein the movement of the housing parts between the first and second positions causes the electrical contact means to automatically pierce the cables.

28. (previously presented) An electrical energy meter according to Claim 26, wherein the housing parts are separate from one another when in the first position, and wherein the housing parts are secured together in the second position.

29. (previously presented) An electrical energy meter according to claim 26, wherein the housing parts are connected together in an open position to receive the cables in the first position, and are closed towards one another in the second position to secure the cables therein.

30. (previously presented) An electrical energy meter according to claim 26, wherein the first part is a back plate having means for receiving the cables and wherein the second part is a front plate which abuts against the back plate, with the cables held therebetween, one of said back plate and front plate being provided with said contact means, whereby the cables are squeezed onto said contact means when the back and front plates are brought together.

31. (previously presented) An electrical energy meter according to claim 26, further comprising means for locking the first and second housing parts together in the second position.

32. (previously presented) An electrical energy meter according to claim 31, further comprising security means which co-operate with the locking means to indicate if the locking means has been tampered with.

33. (currently amended) An electrical energy meter according to claim 25[[24]], wherein all of the power requirements of the meter are drawn from the mains cables.